

## IN THE CLAIMS

Please amend the claims as follows:

- 1 1. (currently amended) An ultrasound system comprising:
  - 2 a signal generating and receiving unit;
  - 3 a cableless coupling assembly, the cableless coupling assembly comprising
  - 4 intermediate elements coupled to electrical pads wherein the intermediate elements
  - 5 comprise electrically conductive particles, and is configured to attenuate sound; and
  - 6 an ultrasound transducing assembly coupled via the cableless coupling assembly
  - 7 to the signal generating and receiving unit wherein the ultrasound transducing
  - 8 assembly comprises:
    - 9 at least one transducer configured to provide sufficient bandwidth for
    - 10 multiple frequency operation, the at least one transducer configured to be
    - 11 electrically matched to the signal generating and receiving unit.
- 12
- 1 2. (currently amended) An ultrasound system comprising:
  - 2 transducers having at least one transducer configured to provide sufficient
  - 3 bandwidth for multiple frequency operation, the transducer comprising:
    - 4 acoustic transducing elements; and
    - 5 an acoustically isolating assembly connected to the acoustic transducing
    - 6 elements; and
    - 7 a signal generating and receiving unit connected to the acoustically isolating
    - 8 assembly wherein the transducers are directly connected to the signal generating and
    - 9 receiving unit via a cableless connector and the signal generating and receiving unit is
    - 10 electrically matched to the at least one transducer.
- 11
- 1 3. (original) The system of claim 2 wherein the acoustic transducing elements include at
- 2 least an acoustically active material between two electrical contacts.
- 3

1       4. (original) The system of claim 3 wherein the acoustic transducing elements include  
2       an acoustic matching assembly coupled to one of the two electrical contacts and an  
3       acoustic window coupled to the acoustic matching assembly.

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1       5. (original) The system of claim 2 wherein the signal generating and receiving unit  
2       includes a motherboard.

3

1       6. (original) The system of claim 2 wherein a filler material is placed within kerfs  
2       formed by the acoustically isolating assembly.

3

1       7. (original) The system of claim 2 wherein the acoustically isolating assembly includes  
2       posts of an electrically conductive and acoustically attenuating material.

3

1       8. (original) The system of claim 7 wherein the posts are anisotropic conductors.

2

1       9. (original) The system of claim 7 wherein the posts are isotropic conductors.

2

1       10. (withdrawn) The system of claim 2 wherein the acoustically isolating assembly  
2       includes insulating posts having conductors for conducting electrical signals.

1       11. (withdrawn) The system of claim 10 wherein the conductors are partially  
2       embedded within the posts.

1       12. (withdrawn) The system of claim 10 wherein the conductors are attached to the  
2       outside of the posts.

1       13. (withdrawn) The system of claim 10 wherein the conductors have an insulative  
2       backing that is coupled with the posts.

1 14. (withdrawn) The system of claim 10 wherein the conductors are longer than and  
2 extend beyond the posts.

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1 15. (currently amended) An ultrasound system comprising:  
2       circuitry having a signal generating and receiving unit;  
3       acoustic transducing elements that include configured to provide sufficient  
4       bandwidth for multiple frequency operation, and electrically matched to the circuitry,  
5       the acoustic transducing elements comprising:  
6               an acoustically active material between two electrical contacts[[,]];  
7               an acoustic matching assembly coupled to one of the two electrical  
8        contacts[[,]]; and  
9               an acoustic window coupled to the acoustic matching assembly;  
10        a cableless coupling assembly coupled to the signal generating and receiving unit  
11       and the acoustic transducing elements wherein a transducer is directly connected to the  
12       signal generating and receiving unit via a connector, including at least the cableless  
13       coupling assembly comprising:  
14               an acoustically isolating assembly having posts configured to be  
15               electrically conductive and acoustically attenuating, isolating the acoustic  
16               transducing elements; and  
17               a filler material placed within kerfs formed by the acoustically isolating  
18        assembly.

1 16. (original) The system of claim 15 wherein the posts are anisotropic conductors.  
2

1 17. (original) The system of claim 15 wherein the posts are isotropic conductors.  
2

1 18. (withdrawn) The system of claim 15 wherein the acoustically isolating assembly  
2 includes conductors for conducting electrical signals coupled to the posts.

1 19. (withdrawn) The system of claim 18 wherein the conductors are partially  
2 embedded within the posts.

1 20. (withdrawn) The system of claim 18 further comprising an acoustical index  
2 matching element.

1 21. (withdrawn) The system of claim 18 wherein the conductors are attached to the  
2 outside of the posts.

1 22. (withdrawn) The system of claim 18 wherein the conductors have an insulative  
2 backing that is coupled with the posts.

1 23. (withdrawn) The system of claim 18 wherein the conductors are longer than and  
2 extend beyond the posts.

1 24-47. (cancelled)

1 48. (currently amended) An ultrasound system comprising:  
2       [[a]] signal generating and receiving means;  
3       [[an]] ultrasound transducing means configured to provide sufficient bandwidth  
4       for multiple frequency operation, and electrically matched to the signal generating and  
5       receiving means;  
6       a cableless cableless coupling means connected to the signal generating and  
7       receiving means and to the ultrasound transducing means wherein the ultrasound  
8       transducing means are directly connected to the signal generating and receiving means  
9       via connection means, including  
10       [[a]] means for acoustically isolating the ultrasound transducing means  
11       from the signal generating and receiving means, and  
12       [[a]] means for conducting electricity; and  
13       [[an]] acoustic backing means for attenuating acoustic reflections.